

REMARKS/ARGUMENTS

Favorable reconsideration of this application, as presently amended and in light of the following discussion, is respectfully requested.

Claims 27-42 are pending in the present application. Claims 27, 29, 34 and 41-42 are amended by the present amendment. Support for the amended claims can be found in the originally filed specification.¹ No new matter is presented.

In the Office Action, Claim 42 is rejected under 35 U.S.C. § 112, second paragraph; Claims 27-32, 40 and 42 are rejected under 35 U.S.C. § 103(a) as unpatentable over Carrender et al. (U.S. 2005/0156039, herein Carrender) in view of Tiernay et al. (U.S. 2001/0050922, herein Tiernay) and Reis et al. (U.S. 5,640,151, herein Reis); and Claims 33-39 and 41 are rejected under 35 U.S.C. § 103(a) as unpatentable over Carrender in view of Tiernay, Reis and Hermann et al. (U.S. 2003/0151513, herein Hermann).

The Office Action rejects Claim 42 under 35 U.S.C. § 112, second paragraph, as indefinite, noting that the phrase “the second passive received” fails to have proper antecedent basis. In response, Claim 42 is amended to properly recite “the second passive receiver” instead of “the second passive received”.

Accordingly, Applicants respectfully request that the rejection of Claim 42 under 35 U.S.C. § 112, second paragraph, be withdrawn.

The Office Action rejects Claims 27-32, 40 and 42 under 35 U.S.C. § 103(a) as unpatentable over Carrender in view of Tiernay and Reis. In response to this rejection, Applicants respectfully submit that amended independent Claim 27 recites novel features clearly not taught or rendered obvious by the applied references.

Independent Claim 27 is amended to recite, in part, a heterogeneous wireless data transmission network comprising:

¹ e.g., Fig. 4-2, p. 23, l. 33 – p. 34, l. 28, and p. 15, ll. 10-22.

a first master node;
a second master node ..., wherein ...
the second master node is configured to provide an electromagnetic field to allow MBS, and
the first master node is configured to receive the data from the first passive transmitter when the second master node provides the electromagnetic field.

Support for the above-emphasized claimed features can be found in an exemplary embodiment at least at Fig. 4-2, p. 23, l. 33 – p. 34, l. 28, and p. 15, ll. 10-22 of the originally filed specification. An advantage of the claimed configuration is that the division of labor between master nodes allows one master node to concentrate on providing the electromagnetic field while the other concentrates on receiving the modulated backscatter signals.

Turning to the applied primary reference, Carrender describes an identification system including a radio frequency identification reader and a plurality of tags, wherein the system uses either passive or semi-passive active backscatter transponders as tags.² More particularly, paragraph [0032] of Carrender describes that an RFID reader modulates an RF carrier signal to transmit commands, and, upon completion of the transmission of the commands, the reader ceases modulation and maintains RF to power the tags during the reply phase. The tags then communicate with the reader via backscatter modulation during this period.

Carrender, therefore, describes a configuration in which the same reader both modulates the RF carrier signal and receives data from the tags via backscatter modulation. Thus, Carrender fails to teach or suggest a system that includes first and second master nodes, wherein “*the second master node* is configured to *provide an electromagnetic field to allow MBS*” and “*the first master node* is configured *to receive the data from the first passive*

² Carrender ¶ [0018].

transmitter when the second master node provides the electromagnetic field”, as recited in amended independent Claim 27.

Tiernay, one of the applied secondary references, describes a multiple protocol transponder capable of both active transmission or modulated backscatter transmission.³ More particularly, Fig. 1 and paragraph [0031] of Tiernay describe a transponder 100 that is typically mounted in a vehicle that passes within range of a reader 102 to permit communication and identification of the transponder. Paragraph [0032] of Tiernay further describes that a single reader may communicate with vehicle transponders in several lanes without traffic restrictions.

Tiernay, however, fails to disclose a second reader that is configured to provide an electromagnetic field to allow modulated backscatter transmission from the transponder. Thus, Tiernay also fails to teach or suggest a system that includes first and second master nodes, wherein “***the second master node*** is configured to *provide an electromagnetic field to allow MBS*” and “***the first master node*** is configured to *receive the data from the first passive transmitter when the second master node provides the electromagnetic field*”, as recited in amended independent Claim 27.

Reis, another secondary reference, also fails to remedy the above noted deficiencies of Carrender and Tiernay.

Particularly, at Fig. 8 and col. 8, ll. 61-62, Reis describes two interrogators covering overlapping network cells. As described at col. 22, ll. 62-65, both interrogators receive the signal whereby the antenna receiving the strongest signal is reported to the host computer 40. Further, as described at col. 22, ll. 50-55, the interrogators communicate with all of the radio tags located within the communication cell associated with that interrogator.

³ Tiernay, ¶ [0050].

Reis, however, fails to disclose that one interrogator provides the electromagnetic field for the slave node while the other receives the modulated backscatter of the slave node, as claimed.

Therefore, Carrender, Tiernay and Reis, even if combined, fail to teach or suggest a system that includes first and second master nodes, wherein “*the second master node* is configured to *provide an electromagnetic field to allow MBS*” and “*the first master node* is configured *to receive the data from the first passive transmitter when the second master node provides the electromagnetic field*”, as recited in amended independent Claim 27.

Accordingly, for at least the reasons discussed above, Applicants respectfully request that the rejection of Claim 27 (and the claims that depend therefrom) under 35 U.S.C. § 103 be withdrawn.

Regarding the rejection of Claims 33-39 and 41 under 35 U.S.C. § 103(a) as unpatentable over Carrender in view of Tiernay, Reis and Hermann, Applicants note that these claims each ultimately depend from independent Claim 27 and are believed to be patentable for at least the reasons discussed above. Moreover, Hermann fails to remedy the above noted deficiencies of Carrender, Tiernay and Reis.

Accordingly, Applicants respectfully request that the rejection of Claims 33-39 and 41 under 35 U.S.C. § 103 be withdrawn.

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Consequently, in view of the present amendment and in light of the foregoing comments, it is respectfully submitted that the invention defined by Claims 27-42 is patentably distinguishing over the applied references. The present application is therefore believed to be in condition for allowance and an early and favorable reconsideration of the application is therefore requested.

Respectfully submitted,

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